



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,943	08/09/2001	Tadao Kanuma	040679-1324	1999
22428	7590	08/09/2006		EXAMINER
FOLEY AND LARDNER LLP				SINGH, ARTI R
SUITE 500				
3000 K STREET NW			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20007			1771	

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/924,943	KANUMA, TADAO	
	Examiner Ms. Arti Singh	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on ____.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) ____ is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
 5) Claim(s) ____ is/are allowed.
 6) Claim(s) 1-24 & 29-32 is/are rejected.
 7) Claim(s) ____ is/are objected to.
 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: ____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: ____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: ____

DETAILED ACTION

Response to Amendment

1. The Examiner has carefully considered Applicant's amendments and accompanying remarks dated 05/02/06. Applicant's amendments to the claims have been entered. The rejection made under 112-2 in the previous office action is now withdrawn in light of the clarity provided to the positioning of the coating and fabric layers. All previous made rejections are also withdrawn and a new rejection has been set forth below. Applicant's arguments with respect to claims 1-26 and 29-32 have been considered but are moot in view of the new ground(s) of rejection.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter See 37 CFR 1.75(d)(1) and MPEP § 608.01(0). Correction of the following is required: the specification does not disclose a description of JIS standards that are claimed. Please provide of a copy of the standards that are being relied upon at the time of conception of this invention as these Standards are always changing. Appropriate correction is required.

Claim Objections

3. Claim 15 is objected to because of the following informalities: please correct the claim language to define what is meant by 1) and 2). Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. Claims 1-26 and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6420037 issued to Tsuji et al. in view of *KAMI et al USPN 6283507*.

USPN 6420037 issued to Tsuji et al teaches a silicone rubber based coating composition used for airbags (abstract). The silicone rubber based coating compositions that

are applied to the fabric are those well known in the art of airbags and can be organic peroxide curing type silicone rubber compositions, addition reaction curing type silicone rubber compositions, condensation reaction curing type silicone rubber compositions, silicone latexes which turn into rubber via crosslinking as a result of water evaporation can all be used. Among them, addition reaction curing type silicone rubber compositions are preferable, such as an addition reaction curing type liquid silicone rubber compositions (column 2). The Examiner is equating these silicone coatings to be equivalent, if not the same of Applicants first thermosetting silicone. The silicone rubber based coating composition of the present invention can be used to make coated base fabric for air bags by coating a fabric of synthetic fiber used for air bags, for example, Nylon 6, Nylon 66, Nylon 46, and other polyamide fiber fabrics, aramid fiber fabrics, fabrics of polyester fibers represented by polyethylene terephthalate, polyether imide fiber fabrics, fabrics of sulfone series fibers, carbon fiber fabrics, and the like therewith and then curing it. The coating amount is preferably not more than 150 g/m². The air bag base fabric obtained by coating with the above described silicone rubber base composition is characterized in that the tackiness of the cured coating film surface is extremely low, which provides for superior processability during sewing and such without dusting the coating film surface with talc and calcium carbonate and eliminates the problem of adhesion of the coating film when folded and stored (column 5). In Application Example 4, the instant patent teaches silicone rubber coated fabric was produced by coating the silicone rubber based coating composition on fabric made of Nylon 66 fiber (420 denier) using a coater to apply the minimum amount permitting uniform coating without irregularities and then curing it by heating for 2 minutes at 180 degrees C in a heating oven. After superimposing the coated surfaces of the coated

fabric, applying a room temperature curable silicone rubber adhesive agent (trade name "SE9145. RTV," from Dow Corning Toray Silicone Co., Ltd., Japan) there between, and allowing the fabric to stand at room temperature for 7 days, it was cut into 2.5 cm (width) times 10 cm (length) samples and subjected to a peel test to measure its adhesive strength. In addition, in order to carry out a Scott rubbing test, the samples were subjected to rubbing 1,000 times under a pressure of 2 kgf using a Scott rubbing testing machine, followed by visual evaluation of the state of peeling of the silicone rubber coating film from the fabric (column 7). The other working examples teach Applicant's limitation ranges of viscosity, and placement of the coating. Thus, Tsuji et al teach an airbag, coated with thermoplastic silicone and then additionally coat a second silicone in-between the superimposed layers of silicone/fabric. They teach the coating weight to be within Applicant's claimed range of 200g/m² or less and also use similar JIS test standards for hardness and fractural elongation. Tsuji et al, do not explicitly teach the structure of the fabric that is employed. This is remedied by Kami et al USPN 6283507 (applied previously)

Kami et al. disclose a light weight airbag wherein the airbag constitutes a base fabric composed of a woven fabric which has been made using a raw yarn of less than 150 denier (column 4, lines 25-34) and a cover factor of 2100 or more (column 4, lines 35-51) a basis weight of 140 g/m² or less (column 4, line 52-57) to which a heat resistant elastomer is applied thereon. At least a part of the sewn areas relating to the main body of the airbag, particularly where a reinforcing fabric is sewn around the inflator fitting hole, being sewn with a sewing thread and the stitch number complying with a formula $2 \leq T/S \leq 8$ (column 3, line 19) which is exactly the same as required by Applicant in claim 14 (abstract, column 2, line 55 to column 3, line 65). Several different coating processes to increase the tightness in the airbag however most coatings or resins are applied in an amount between 20 and 100 g/m²

Art Unit: 1771

(column 5, line 4). In column 7, lines 13-19. The instant patent teaches the use of many different types of synthetic threads used for sewing maybe nylon, polyester, vynylon, aramids, fluorine, carbon and glass. The woven fabric forming the airbag is formed of filaments like polyamide fibers, nylon, polyester, etc. (column 8, lines 41-60). The teachings of Kami et al. disclose the use of silicone system coatings (column 9, line 19).

Therefore it would have been obvious to a skilled artisan to use the fabric of Kami et al in the airbag composite or as the fabric in the airbag of Tsuji et al. One would have been motivated to use this specific fabric, as it would create an extremely lightweight airbag which can be easily be folded and compacted.

Additionally, given that the combination of Tsuji et al and Kami et al. meet each and every chemical and structural requirement set forth in the claims, then it must meet the property limitations of hardness and fractural elongation recited that depend from said requirements. In other words, it is reasonable to presume that the invention of Tsuji et al and Kami et al. would inherently anticipate if not render obvious the physical properties of hardness and fractural elongation are deemed to be inherent/obvious to the invention of *Tsuji et al.* Kami et al and ~~et al.~~ The burden is upon Applicant to prove otherwise. See *In re Fitzgerald* 205 USP 495. Additionally, it should be noted that with regard to the claim limitations of hardness and fractural elongation, it is also the position of the Examiner that these are result effective variable and would be dependant upon the basis weight of the fabric, the amount and composition of the coating, and optimizing any or all criteria would have varying physical effects on the composite once tested. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have varied the amount of coating, basis weight of the fabric or composition, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art as long as

Art Unit: 1771

structurally and chemically they are the same. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have the coating, motivated by the desire to obtain an airbag that was able to withstand the impact without disintegrating.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ms. Arti Singh whose telephone number is 571-272-1483. The examiner can normally be reached on M-T 9-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Ms. Arti Singh
Primary Examiner
Art Unit 1771

ars